

**CLAIMS**

1. An in-vivo device comprising:
  - a substantially spherical housing, said housing comprising a sensor;
  - 5       and
  - a detachable appendage.
2. The device according to claim 1 wherein the sensor is an imager.
3. The device according to claim 2 wherein the imager is a CMOS imager.
4. The device according to claim 1 wherein the housing includes a viewing  
10       window.
5. The device according to claim 1 wherein the appendage includes a degradable material.
6. The device according to claim 5 wherein the degradable material is pH sensitive.
- 15   7. The device according to claim 1 wherein the appendage and the spherical housing are glued together.
8. The device according to claim 1 wherein the appendage and the spherical housing are glued together using dissolvable glue.
9. The device according to claim 1 wherein the appendage comprises:  
20       an outer coating; and  
       an internal filling.
10. The device according to claim 9 wherein the outer coating is semi-permeable.
11. An ingestible imaging device comprising:  
25       a substantially spherical imaging device; and  
       a detachable appendage.
12. The device according to claim 11 comprising:  
       an illumination source; and  
       a transmitter.
- 30   13. The device according to claim 12 wherein the illumination source has intensity that is adjustable in vivo.
14. The device according to claim 11 comprising a ballast weight.
15. The device according to claim 11 wherein the appendage includes a degradable material.

16. The device according to claim 15 wherein the degradable material is pH sensitive.
17. The device according to claim 11 wherein the appendage and the spherical housing are glued together.
- 5 18. The device according to claim 11 the appendage and the spherical housing are glued together with dissolvable glue.
19. The device according to claim 11 wherein the appendage comprises:  
an outer coating; and  
an internal filling.
- 10 20. The device according to claim 19 wherein the outer coating is semi-permeable.
21. A method for in vivo sensing, the method comprising:  
causing detachment of an appendage of a sensing device in vivo.
22. The method according to claim 21 wherein the sensing device is  
15 substantially spherical.
23. The method according to claim 21 comprising:  
orienting the sensing device along a body lumen wall.
24. The method according to claim 21 comprising:  
triggering detachment of the appendage.
- 20 25. The method according to claim 21 wherein detachment is triggered by intake of a cold drink.
26. The method according to claim 21 wherein detachment is triggered by exposure to a specified pH environment.
27. A method according to claim 21 wherein the sensing device is an imaging  
25 device.
28. A method for viewing the upper GI tract, the method comprising:  
inserting an ingestible imaging device, the device comprising a  
substantially spherical section and a detachable appendage; and  
detaching the appendage.
- 30 29. The method according to claim 28 comprising:  
detaching the appendage near entrance to a stomach.
30. The method according to claim 28 comprising:  
orienting the in-vivo device along an esophageal wall.

31. The method according to claim 28 comprising:  
triggering detachment of the appendage.
32. The method according to claim 28 wherein detachment is triggered by the  
intake of a hot drink.
- s 33. The method according to claim 28 wherein detachment is triggered by an  
elapsed time period.
34. The method according to claim 28 wherein the detachment is externally  
controlled.